

ABSTRACT OF THE DISCLOSURE

Output light spectrum $P2(\lambda)$ data from an optical amplifier and input light spectrum $P1(\lambda)$ data of signal light are prepared, the difference between the $P2(\lambda)$ and a value obtained by multiplying the $P1(\lambda)$ by a provisional gain GT is determined (Steps S232), for the obtained spectrum data, a noise removing process such as a moving average process and the like is performed and then, a spline interpolation process is also performed, whereby ASE light spectrum $P3(\lambda)$ data is prepared and an ASE light level $P\text{ ASE}$ is determined (Steps S233 through S235). In addition, a noise figure-measuring device 10 calculates the number of channels of WDM light and signal light wavelengths of the respective channels based on the $P1(\lambda)$ or $P2(\lambda)$, and performs analysis to calculate a noise figure NF and the like of an appointed wavelength range around the center of each wavelength thus calculated.

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